**DFTG – Drafting Technology**

DFTG 1015 - Practical Geometry and Trigonometry for Drafting Technology
3.000 Credits
Prerequisites: MATH 1013
This course introduces and develops basic geometric and trigonometric concepts. Course content will emphasize geometric concepts and trigonometric concepts as they pertain to drafting/CAD.

DFTG 1101 - CAD Fundamentals
4.000 Credits
Establishes safety practices as they relate to a drafting environment. Introduces basic CAD functions while presenting essential principles and practices for line relationships, scale, and geometric construction.

DFTG 1103 - Technical Drawing I
4.000 Credits
Prerequisites: DFTG 1101
Technical Drawing I provides multiview and pictorial sketching, orthographic drawing and fundamental dimensioning methods necessary to develop 2D and 3D views that completely describe machine parts for manufacture using intermediate CAD software techniques.

DFTG 1105 - 3D Mechanical Modeling
4.000 Credits
Prerequisites: DFTG 1103
In the 3D Mechanical Modeling course, the student becomes acquainted with concepts of the software related to Parametric modeling for mechanical drafting. The student will develop the skills necessary to create 3D models and presentation/working drawings.

DFTG 1107 - Technical Drawing II
3.000 Credits
Prerequisites: DFTG 1103
Technical Drawing II continues dimensioning skill development and introduces tools for precision measurement and sectional views.

DFTG 1109 - Technical Drawing III
4.000 Credits
Prerequisites: DFTG 1105
Introduces techniques necessary for auxiliary view drawings, surface development, and developing sheet metal parts. Topics include primary auxiliary views, secondary auxiliary views, surface development, and developing sheet metal parts.

DFTG 1111 - Technical Drawing IV
4.000 Credits
Prerequisites: DFTG 1103
This course covers the basics of identifying fastening techniques, interpreting technical data, and creating working drawings. Topics include utilization of technical data, identifying thread types, graphic representation of threaded fasteners, utilization of other fastening techniques, welding symbol identification, and welding symbol usage in working drawings.

DFTG 1113 - Technical Drawing V
4.000 Credits
Prerequisites: DFTG 1111
Technical Drawing V provides knowledge and skills necessary to create working drawings for the manufacturer of machine parts. Topics include detail drawings, orthographic assembly drawings, pictorial assembly drawing, and utilization of technical reference source.

DFTG 1125 - Architectural Fundamentals
4.000 Credits
Introduces architectural fundamental principles and practice associated with architectural styles and drawing. Fundamentals of residential and commercial practices will be covered. Topics include specifications and materials; architectural styles, construction drawing practices and procedures, dimensioning, and scales.

DFTG 1127 - Architectural 3D Modeling
4.000 Credits
In the Architectural 3D Modeling course, the student becomes acquainted with concepts of the software related to parametric modeling for architectural drafting. The student will develop the skills necessary to
create 3D models and presentation/construction drawings.

DFTG 1129 - Residential Drawing I
4.000 Credits
Prerequisites: DFTG 1125
Introduces the essential skills necessary for assessing the expected materials, labor requirements, and costs for given structures or products. Also students will be introduced to architectural drawing skills necessary to produce a basic set of construction drawings given floor plan information. Topics include material take-offs; footing and foundation; floor plans; exterior elevations, site plans; and construction drawing techniques/practices.

DFTG 1131 - Residential Drawing II
4.000 Credits
Prerequisites: DFTG 1129
Continues in-depth architectural drawing practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include material take-offs; footing and foundation; floor plans; exterior elevations; site plans; and construction drawing techniques/practices.

DFTG 1133 - Commercial Drawing I
4.000 Credits
Prerequisites: DFTG 1125
Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include structural steel detailing, reflected ceiling plans, rebar detailing, and commercial construction drawings.

DFTG 2030 - Advanced 3D Modeling Architectural
4.000 Credits
Prerequisites: DFTG 1127
In this course students become acquainted with concepts of the software related to Presentations for architectural renderings and architectural animations. Students will demonstrate skills in texture applications, camera angles for presentations, lighting and shadow techniques for architectural renderings, and animation techniques for architectural presentations.

DFTG 2040 - Advanced 3D Modeling Mechanical
4.000 Credits
Prerequisites: DFTG 1105
In this course, the student becomes acquainted with concepts of the software related to sheet metal modeling for mechanical drafting, multi-body parts assemblies, and basic animation techniques for mechanical assembly presentations.

DFTG 2110 - Blueprint Reading for Technical Drawing I
2.000 Credits
Introduces the fundamental principles and practices associated with interpreting technical drawings. Topics include interpretation of blueprints and sketching.

DFTG 2120 - Print Reading for Architecture
3.000 Credits

This course emphasizes skills in reading, producing, and interpreting construction drawings. Topics include reading and measuring plans, identifying and understanding lines, symbols, dimensions, materials, schedules, and specifications.

DFTG 2210 - Blueprint Reading for Technical Drawing II
2.000 Credits
Prerequisites: DFTG 2110
This course continues the development of blueprint reading as applied to technical drawing. Topics include threads (inch and metric), auxiliary views, geometric tolerancing, and weldments.

DFTG 2500 - Drafting Technology Exit Review
3.000 Credits
Emphasis is placed on students' production of portfolio-quality pieces. Focuses on the preparation for entry into the job market.